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CLEANING AND PAINTING TURPENTINE CUPS -- REVISED

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By

G. P. Shingler, Senior Chemist, Ray V. Lawrence, Junior Chemist, and N. C. McConnell, Turpentine Stiller, Naval Stores Station, Bureau of Agricultural Chemistry and Engineering, Olustee, Florida.

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Due to the present shortage of aluminum cups there has been considerable interest shown in the use of painted sheet-iron cups. Old galvanized cups properly cleaned and painted will produce high-grade rosin for two or three years, after which the cups should be cleaned and repainted.

An article, "Cleaning and Painting Turpentine Cups (MC-43)," by A. R. Shirley, Naval Stores Cooperative Agent, was issued January 14, 1939. Because of the increased interest, it was deemed desirable to revise this circular and include a description of the equipment necessary to carry out cup cleaning.

For cleaning cups prior to painting or repainting, the Naval Stores Station suggests the following procedure.

Equipment necessary:

Two water-tight vats heated either by steam coils or by furnace underneath the vat. If suitable vats are not on hand the following construction is recommended. The bottom and ends of the vat are made from a piece of 3/8" sheet iron 3 feet wide and 12 feet long. The ends of the vat are formed by making a 90° bend in the sheet iron three feet from each end. The sides are made of 3" x 8" or 3" x 10" cypress or pine planks fastened to the bottom and ends with 1/2" x 2" lag screws; two or three stay bolts are used on each side. Cloth may be used as a gasket between the boards and at the ends. If the vats are to be heated directly by a furnace the furnace should run the full length of the vat and be approximately 2 feet wide and 2 feet deep.

For rinsing the cups a continuous stream of water is desirable. but if this is not available almost any type of water vat may be used.

Directions for cleaning:

Boil the cups in the water vat for ten to fifteen minutes or until the gum and trash adhering to them are removed. This gum and trash floats on the top of the water and is removed by skimming.

After the gum has boiled off, the cups are transferred to the alkali vat and boiled for ten to fifteen minutes. The solution in the alkali vat is made up as follows:

For each 6 gallons of water (50 lbs.) add one pound of washing soda (sodium carbonate) and one ounce of water glass (sodium silicate). The tank listed above, which is 3' x 3' x 6', will require 65 pounds of washing soda and 3-1/2 pounds of water glass.

After the cups are removed from the alkali vat they are thoroughly rinsed. If they have been painted before, it will be necessary to wipe or brush off the portion of old paint film which is not completely removed in the alkali vat. This old paint comes off easily if the cups were boiled long enough in the alkali.

The cleaned cups are then stacked upside down so they will drain.

Directions for painting:

All cups must be completely dry and clean before the paint is applied. Particular attention should be paid to see that the folds in the cup are dry and clean. Any dented or bent cups should be straightened before they are painted.

Care should be taken in the selection of the paint to be used. Some types of paint are not suitable for use as cup paint. The label on the can should state that the paint is recommended for use on turpentine cups.

Should the operator wish to mix his own paint the following formula is suggested:

Paint Formula

Wood alcohol (or denatured alcohol) - - - - - - 10 gallons
Dry orange shellac (pure) - - - - - - - - - - - - 24 pounds
Dry red lead - 24 pounds
Venice turpentine - - - - - - - - - - - - - - - - - - 28 ounces
(The quantities listed should give about 12 gallons of paint, which should paint the inside of 5,000 cups).

Dissolve the shellac in alcohol. This operation, which takes some time, is best done by putting the shellac in a can and stirring as the alcohol is added. After all the alcohol has been added cover the can and allow the mixture to stand undisturbed for several hours, preferably overnight. After all the shellac has dissolved in the alcohol, strain the liquid through cheesecloth to remove any insoluble matter.

Warm the Venice turpentine in its container in boiling water (in your glue pot, if handy) until it flows freely, and pour it into the shellac solution while stirring. The mixture is now ready for use in making up the paint. When ready to use the paint, and not before, mix the dry red lead with the liquid, stirring thoroughly to break up all lumps. If the paint is too stiff, add more alcohol; more than the amount specified may be necessary. This should be done with the can in hot water (in your glue pot for convenience). Be sure that there is no fire that will come in contact with the mixture or vapors, since the alcohol is highly inflammable. Keeping the paint container covered tightly except when stirring or emptying will reduce the amount of evaporation and make the paint go farther.

Caution: Since the mixture of shellac solution and red lead even when properly thinned, hardens rapidly, it is recommended that only about half of the finished paint be made up at a time and used immediately.

Costs:

The estimated cost of cleaning and painting turpentine cups is from $130.00 to $160.00 per crop. This sum includes $90.00 to $95.00 for material such as paint, paint brushes, paint thinner, and washing soda. The remainder is allowed for labor which will vary considerably but will not likely be less than $40.00 per crop. Proper cleaning and storage of brushes will reduce cost on the next painting job.

Always use wooden dip paddles when dipping painted cups. ACKNOWLEDGMENT: The authors are grateful for assistance and advice received from the Florida Cooperative Agent, Mr. John O. Boynton, and from the Georgia Cooperative Agent, Mr. A. R. Shirley.